

PCT09

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/937-974

DATE: 10/30/2001
TIME: 14:12:35

Input Set : A:\Dsc64-2.app
Output Set : N:\NCRE3\10302001\1937974.raw

ENTERED

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60 cgaatgtat tqqqqqtqq qaqqqacaaq ttatqqtatt faaagagaat aaacattttg 1620
61 cacatacatq tattgtacaa caqfaaqatc ctctgttaaa accaqctgtc ctgttccta 1680
62 ttcctatcatq ttcctatcatq gtaaaaaaaq gtcacccagg ctgttccccca gtgtatgtac 1740
63 ctatgttccc ttcacatq ttcactgtacc atttcacta catcccttc ctacccccc 1800
64 ttcacaaacca atcaaqtgaa taatgtatta ttatcttcc tcatactgtgc ttatctttt 1860
65 ttttgttggat tqqltcaat taatggaaaat aaaatgttctt aaatttacat tttttatggg 1920
66 tattgttaat aaaaacaat ttttatactta aaaaaaaaaa aaaaaaaaaa aaaa 1974
69 <210> SEQ ID NO: 2
70 <211> LENGTH: 410
71 <212> TYPE: PRT
72 <213> ORGANISM: Artificial Sequence
74 <220> FEATURE:
75 <223> OTHER INFORMATION: Description of Artificial Sequence:Putative
76 protein derived from ORF cDNA of SEQ ID NO:1
78 <400> SEQUENCE: 2
79 Met Glu Leu Pro Ser Gly Pro Gly Pro Glu Arg Leu Phe Asp Ser His
80 1 5 10 15
82 Arg Leu Pro Gly Asp Cys Phe Leu Leu Leu Val Leu Leu Tyr Ala
83 20 25 30
85 Pro Val Gly Phe Cys Leu Leu Val Leu Arg Leu Phe Leu Gly Ile His
86 35 40 45
88 Val Phe Leu Val Ser Cys Ala Leu Pro Asp Ser Val Leu Arg Arg Phe
89 50 55 60
91 Val Val Arg Thr Met Cys Ala Val Leu Gly Leu Val Ala Arg Gln Glu
92 65 70 75 80
94 Asp Ser Gly Leu Arg Asp His Ser Val Arg Val Leu Ile Ser Asn His
95 85 90 95
97 Val Thr Pro Phe Asp His Asn Ile Val Asn Leu Leu Thr Cys Ser
98 100 105 110
100 Thr Pro Leu Leu Asn Ser Pro Pro Ser Phe Val Cys Trp Ser Arg Gly
101 115 120 125
103 Phe Met Glu Met Asn Gly Arg Gly Glu Leu Val Glu Ser Leu Lys Arg
104 130 135 140
106 Phe Cys Ala Ser Thr Arg Leu Pro Pro Thr Pro Leu Leu Leu Phe Pro
107 145 150 155 160
109 Glu Glu Glu Ala Thr Asn Gly Arg Glu Gly Leu Leu Arg Phe Ser Ser
110 165 170 175
112 Trp Pro Phe Ser Ile Gln Asp Val Val Gln Pro Leu Thr Leu Gln Val
113 180 185 190
115 Gln Arg Pro Leu Val Ser Val Thr Val Ser Asp Ala Ser Trp Val Ser
116 195 200 205
118 Glu Leu Leu Trp Ser Leu Phe Val Pro Phe Thr Val Tyr Gln Val Arg
119 210 215 220
121 Trp Leu Arg Pro Val His Arg Gln Leu Gly Glu Ala Asn Glu Glu Phe
122 225 230 235 240
124 Ala Leu Arg Val Gln Gln Leu Val Ala Lys Glu Leu Gly Gln Thr Gly
125 245 250 255
127 Thr Arg Leu Thr Pro Ala Asp Lys Ala Glu His Met Lys Arg Gln Arg
128 260 265 270

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130 His Pro Arg Leu Arg Pro Gln Ser Ala Gln Ser Ser Phe Pro Pro Ser
 131 275 280 285
 133 Pro Gly Pro Ser Pro Asp Val Gln Leu Ala Thr Leu Ala Gln Arg Val
 134 290 295 300
 136 Lys Glu Val Leu Pro His Val Pro Leu Gly Val Ile Gln Arg Asp Leu
 137 305 310 315 320
 139 Ala Lys Thr Gly Cys Val Asp Leu Thr Ile Thr Asn Leu Leu Glu Gly
 140 325 330 335
 142 Ala Val Ala Phe Met Pro Glu Asp Ile Thr Lys Gly Thr Gln Ser Leu
 143 340 345 350
 145 Pro Thr Ala Ser Ala Ser Lys Phe Pro Ser Ser Gly Pro Val Thr Pro
 146 355 360 365
 148 Gln Pro Thr Ala Leu Thr Phe Ala Lys Ser Ser Trp Ala Arg Gln Glu
 149 370 375 380
 151 Ser Leu Gln Glu Arg Lys Gln Ala Leu Tyr Glu Tyr Ala Arg Arg Arg
 152 385 390 395 400
 154 Phe Thr Glu Arg Arg Ala Gln Glu Ala Asp
 155 405 410
 158 <210> SEQ ID NO: 3
 159 <211> LENGTH: 1619
 160 <212> TYPE: DNA
 161 <213> ORGANISM: Artificial Sequence
 163 <220> FEATURE:
 164 <223> OTHER INFORMATION: Description of Artificial Sequence:cDNA derived
 165 from human mesenchymal stem cells after treatment
 166 with growth supplement
 168 <400> SEQUENCE: 3
 169 ggacgaggc gccttctct tgcttctggg qgtcggtggcc ttgctccgc tgcgggaa 60
 170 aagaatccag gccctccac ggcgtgtgg gtgcggggcc cccgaagtgc tcgtgtttcc 120
 171 ccgcgttagtc tccgcgtggg caggaacccg aatcatgggt gggaccacca gcaccgcgc 180
 172 ggtcacccctc gagggggacg agaatgagaa catcaccqtg gtgaaggcca tccgggtttc 240
 173 ggaaaatgtg attgatcgaa tgaaggaaat ctctccatct ggtcgaagt ctcagcggtt 300
 174 ttctgtgttat tatgtgcct cagttctga tgaagaattt aaaagaagag tagctgagaa 360
 175 gtcggcattt gcaagcaca agaaagaatc cgaagatcg aaacgactaa agcaagccaa 420
 176 aqagctggac cgagaggagg ctgtgcctaa tgacgtta accagagccca tccctcggtt 480
 177 gaggatatgt aqcgaggagg aacccqctaa qcaaaagcac ctggcttaggc agctggaaaga 540
 178 gaaagaccga gtgctaaaga aqcgaggatgc attctacaaa gaacagctgg ctagactgaa 600
 179 ggagaggacg tcagatctt acagactcac cactgaacaa tatcagaaag ctgtgaaga 660
 180 gtggaaqcaa aqgtcaagcg atatgatct catccaaatgtt gtgtctgtatctt gcaggccaaa 720
 181 atttttcgtt gttaccgtgaa cacacccac cagaccctca aatgtccgc tctggccacc 780
 182 cagtatatgc actgtgtcaa tcatcctaaa cagagcatgc ttgagaagg aggataaaaa 840
 183 ctttcagaat gagcaaaaaca ccatcaacgt taattccaga gatggaaat ttttttctt 900
 184 agtgagaaaa caaccattt gaagagaaga ccaactatga gaagaccact aaagagagac 960
 185 atcaqaatg gattcagc aatcatttca cgttttgaac aqcgacgtt tgaaggccca 1020
 186 aagccttgat caggatcg tcattaaagg acaacttgcgat tatttttttgc acccttctt 1080
 187 gatgattaa aqagaaggcc aqccctctcc acctttttgtt actttcttatt caacttgcac 1140
 188 tgaccataaa atgtttctct tctgaacaag ccccatctt tggtaacactt ccaccctaac 1200
 189 aaagttagat ggggttgggg gctaaattaa ttggagtggg gcgaggagag agccaqaaaa 1260
 190 catagatccg agggcagcag tgctgggtgg agagagccag aaaacagatc tggaggcagc 1320

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191 aqfqctqqat gqaatttgtt aqgctgtggc atqttggtt tqtctttctt ttctctttq 1380
 192 attatqtaaq aqctatttca ttataactta ttatqgtat tatacaggca aqaqacaaa 1440
 193 aaggaaqaa aatgtaccc ttctacttqa alaatgttta tqattacaq tqatataaqq 1500
 194 tatttttata aatatqaaqq caacettggc tqataaaaacc tctatagtgta atactcacat 1560
 195 cttttttttt cttttttttt ataataataata tattttctgtca caaaaaaaaaaaaaaa 1619
 196 <210> SEQ ID NO: 4
 197 <211> LENGTH: 227
 198 <212> TYPE: PR1
 199 <213> ORGANISM: Artificial Sequence
 200 <220> FEATURE:
 201 <223> OTHER INFORMATION: Description of Artificial Sequence:Putative
 202 protein derived from ORF of cDNA of SEQ ID NO: 3.
 203 <400> SEQUENCE: 4
 204 Met Gly Gly Thr Thr Ser Thr Arg Arg Val Thr Phe Glu Ala Asp Glu
 205 1 5 10 15
 206 Asn Glu Asn Ile Thr Val Val Lys Gly Ile Arg Leu Ser Glu Asn Val
 207 20 25 30
 208 Ile Asp Arg Met Lys Glu Ser Ser Pro Ser Gly Ser Lys Ser Gln Arg
 209 35 40 45
 210 Tyr Ser Gly Ala Tyr Gly Ala Ser Val Ser Asp Glu Glu Leu Lys Arg
 211 50 55 60
 212 Arg Val Ala Glu Glu Leu Ala Leu Glu Gln Ala Lys Lys Glu Ser Glu
 213 65 70 75 80
 214 Asp Gln Lys Arg Leu Lys Gln Ala Lys Glu Leu Asp Arg Glu Arg Ala
 215 85 90 95
 216 Ala Ala Asn Glu Gln Leu Thr Arg Ala Ile Leu Arg Glu Arg Ile Cys
 217 100 105 110
 218 Ser Glu Glu Glu Arg Ala Lys Ala Lys His Leu Ala Arg Gln Leu Glu
 219 115 120 125
 220 Glu Lys Asp Arg Val Leu Lys Lys Gln Asp Ala Phe Tyr Lys Glu Gln
 221 130 135 140
 222 Leu Ala Arg Leu Glu Glu Arg Ser Ser Glu Phe Tyr Arg Val Thr Thr
 223 145 150 155 160
 224 Glu Gln Tyr Gln Lys Ala Ala Glu Glu Val Glu Ala Lys Phe Lys Arg
 225 165 170 175
 226 Tyr Glu Ser His Pro Val Cys Ala Asp Leu Gln Ala Lys Ile Leu Gln
 227 180 185 190
 228 Cys Tyr Arg Glu Asn Thr His Gln Thr Leu Lys Cys Ser Ala Leu Ala
 229 195 200 205
 230 Thr Gln Tyr Met His Cys Val Asn His Ala Lys Gln Ser Met Leu Glu
 231 210 215 220
 232 Lys Gly Gly
 233 225
 234 <210> SEQ ID NO: 5
 235 <211> LENGTH: 1917
 236 <212> TYPE: DNA
 237 <213> ORGANISM: Artificial Sequence
 238 <220> FEATURE:
 239 <223> OTHER INFORMATION: Description of Artificial Sequence:cDNA derived

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261 from human mesenchymal stem cells after treatment
 262 with growth supplement.
 264 <400> SEQUENCE: 5
 265 qdcacqaggaa qaqaqtgtgtt qaaactcaaq atccccatgg acaaacaadqa ggtcccccqqc 60
 266 qaaqcqccccc qeqccqtcggc eqqaccggcq egcccccaaq eqtqcccccaq ctqccggccgc 120
 267 qccctccccc qeqccctccacg gctqqaqaaq caccqccqca eqcacaacqgg cqaaacqggcc 180
 268 ttccqqtqca eqcagtgccg qggccqcttc tccacagaqgt cccqctcaac caaacacggc 240
 269 eqcaccacaca eqggcqaqcg qccttacqagq tccccccqat qeqacaaacg ctttccqgcc 300
 270 qccctcaacc tccggcagca eqcaccqccqg caccacqccg aqaaqccgtt cccatqccqg 360
 271 cactqccggc eegegttcgc qcaqacqtcg aactacqccac aqacacctqcg ctqccacacq 420
 272 ggccqaaqacg eqtacqccatq cccqgactqg qgacqeqeet tttggccggcag etcggtgcctg 480
 273 qccqcccccacq qaccacacca caccqccqca eqgcccctacq ctqccqccacq 540
 274 eqcttcgtcgtc aqadetggc getggcccaag caccqccqeq tccacacqgg cqaaqaqccg 600
 275 eaccqctqcg ctgtgtgtgg ccgtccgttc qccaccqccg ccacacctggc qqagcaccqg 660
 276 eqcaccacaca caqqcqacqg qccttacccc tccqcccaqt qccqccqccg ctccqcccta 720
 277 aqcttcgtcact tcatteggca eqcaccqccg caccatqccg qccqccctata tatttqccgc 780
 278 qgctgcqccqg qqqacttcaat gctgccccct qccqcccaeqg ccgcccactgc caccqagcgt 840
 279 tgccggaggt gtgaggggcag ctgqacttccq caqqqctqcg gacggggccqg ctqgggttc 900
 280 gaccttgtqcg cactaaaccca qgctctectt ccggccggcc tccqgggtctg qqaatttqag 960
 281 qqqacqccqg qcccccqtcg cctggactq gqaqacqggg aaaaatcccct gccgggggtcc 1020
 282 ctggaaacag tqcccacccc acatcaactac attccctcg ccgtqtttag tqaataaaagt 1080
 283 attatatect cacccccaccc gtgcctgtga qlqagggtgg tgggagagga agaaagtgg 1140
 284 ggttctccag qctcaggqtc caagtqagtq gtcaaaqgaac caaatggga tgtaaaaccta 1200
 285 aaaaagggttc ccggcaccctt gtttgggtt gtttggqgt gatccacac tttggcccttg 1260
 286 gttactgtt cataaccta gaccgttqaq gggccataaa tataactatgt tcacgatcatg 1320
 287 acacgcaactg cattcggeag agtcccgatg agcaaggcac gaccctcaga ttcctcgtcta 1380
 288 gtqaaggaga gaaaactgtt ataacactac tttaactgttt ttaactgttt tgttatqtaa 1440
 289 gcttaccaccc ccggcgcac agtqacttcac gcctgtatac ccagcaattt gggaggggcga 1500
 290 ggtctggcaga tcacttgagg tttaggatgtt gataccaggc tggccaaacat ggtgaaaccc 1560
 291 ggtctctact aaaaataacaa aaattaactg ggtgtgggtgg cggggccctg taatcccacg 1620
 292 tactqagggg qctgaggcat gaaatcaact tqaacttggg agacagagggt tgcaatgaac 1680
 293 cgagatagtq ccattgtcaact ccggccttggg caacagagga agactgcctc aaacaaacaa 1740
 294 aaaaacaacaa accaaaccaa accaaaaaaa tctcaaagcg attggaccta gcaactt 1800
 295 cctgtatctt ccagactt tggaggccga ggcaggagga tctcttgaag tcaaggttt 1860
 296 gagatcggcc tggagaacaa agtggagaccc ccatcttatta aaaaaaaaaa aaaaaaaaa 1917
 299 <210> SEQ ID NO: 6
 300 <211> LENGTH: 275
 301 <212> TYPE: PRT
 302 <213> ORGANISM: Artificial Sequence
 304 <220> FEATURE:
 305 <223> OTHER INFORMATION: Description of Artificial Sequence:Putative
 306 protein derived from ORF of cDNA of SEQ ID NO: 5.
 308 <400> SEQUENCE: 6
 309 Met Asp Asn Lys Glu Val Pro Gly Glu Ala Pro Ala Pro Ser Ala Asp
 310 1 5 10 15
 312 Pro Ala Arg Pro His Ala Cys Pro Asp Cys Gly Arg Ala Phe Ala Arg
 313 20 25 30
 315 Arg Ser Thr Leu Ala Lys His Ala Arg Thr His Thr Gly Glu Arg Pro
 316 35 40 45

VERIFICATION SUMMARY

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L:10 M:270 C: Current Application Number differs, Replaced Current Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date